

WE CLAIM:

1. A method of programming one or more electronic devices with device information, the method comprising:

installing device programming software onto a programming system, wherein the installing comprises:

verifying installation permissions; and

installing programming software onto the programming system only if the installation permissions are verified;

refilling the programming system with programming permissions, wherein the refilling comprises:

verifying refill permissions; and

establishing predetermined programming permissions in the programming system only if the refill permissions are verified; and programming electronic devices, wherein the programming

comprises:

determining if programming an electronic device is within the programming permissions of the programming system;

detecting the presence of an electronic device to be programmed; and

if programming an electronic device is within the programming permissions and an electronic device is present, using the programming software to program device information onto the electronic device.

2. The method of claim 1, wherein verifying installation permissions comprises:

reading installation card information from an installation security card; and

electronically verifying that the installation card information contains a predetermined installation security code.

3. The method of claim 1, wherein verifying refill permissions comprises:

reading refill card information from a refill security card;

electronically verifying that the refill card information contains a predetermined refill security code;

entering a refill password into the programming system; and

verifying in the programming system the refill password.

4. The method of claim 1, wherein verifying refill permissions comprises:

reading refill card information from a refill security card; and

electronically verifying that the refill card information contains a predetermined refill security code.

5. The method of claim 4, wherein establishing predetermined programming permissions comprises supplying to the programming system refill information and determining from the refill information programming permissions.

6. The method of claim 1, wherein establishing programming permissions in the programming system comprises encrypting the programming permissions.

7. The method of claim 6, wherein verifying refill permissions comprises:

entering a refill password; and
verifying the refill password.

8. The method of claim 1, additionally comprising, upon programming the electronic device, updating the programming permissions in the programming system.

9. The method of claim 8, wherein:
the programming permissions includes an authorized programming count; and

determining if the programming is within the programming permissions includes determining if the programming system has already programmed a number of devices at least equal to the authorized programming count.

10. The method of claim 9, wherein updating the programming permissions comprises decrementing the authorized programming count.

11. The method of claim 8, wherein:

establishing predetermined programming permissions in the programming system comprises establishing a control portion of the programming permissions in two storage locations in the programming system;

updating the programming permissions comprises updating the control portion of the programming permissions in both of the two storage locations; and

determining if programming an electronic device is within the programming permissions comprises examining from the two storage locations the control portion of the programming permissions.

12. The method of claim 11, wherein:

establishing a control portion of the programming permissions in at least one of the storage locations comprises encrypting the control portion; and

updating the control portion of the programming permissions in the at least one storage locations comprises encrypting the updated control portion of the programming permissions.

13. The method of claim 1, wherein storing permissions comprises storing at least a portion of the permissions in a computer registry file.

14. A method of programming one or more electronic printer security devices with device information, the method comprising:

establishing programming permissions in a programming system, wherein establishing programming permissions comprises:

verifying refill permissions; and

establishing programming permissions in the programming system only if the refill permissions are verified;

examining the programming permissions to determine if programming an electronic device is within the programming permissions;

if programming an electronic device is within the programming permissions, programming an electronic printer security device with device information relating to a printing apparatus;

updating the programming permissions to reflect that the electronic device has been programmed;

determining if the updated programming permissions are below a predetermined threshold; and

if the updated programming permissions are below the predetermined threshold, requesting a refill of the programming permissions.

15. The method of claim 14, wherein verifying refill permissions comprises:

reading refill card information from a refill security card; and

electronically verifying that the refill card information contains a predetermined refill security code.

16. The method of claim 15, wherein establishing programming permissions comprises encrypting at least a portion of the programming permissions.

17. The method of claim 16, wherein:

establishing programming permissions additionally comprises:

establishing a control portion of the programming permissions in a first storage location in the programming system;
and

additionally establishing the control portion of the programming permissions in a second storage location in the programming system; and

updating the programming permissions comprises updating the control portion of the programming permissions established at both the first and second storage locations.

18. The method of claim 14, wherein:

the programming permissions include a programming count;

updating the programming permissions comprises decrementing the programming count; and

determining if the updated programming permissions are below a predetermined threshold comprises determining if the programming count is below a predetermined number.

19. The method of claim 18, wherein determining if programming an electronic device is within the programming permissions comprises determining if the decremented programming count is below a second predetermined number, less than the first predetermined number.

20. A method of programming one or more electronic printer tracking devices with device information, the method comprising:

establishing programming permissions in a programming system, wherein establishing permissions comprises:

encrypting at least a portion of the programming permissions; and

establishing the encrypted portion of the programming permissions in at least one storage location in the programming system;

examining the encrypted portion of the programming permissions to determine if programming an electronic device is within the programming permissions;

detecting the presence of an electronic device to be programmed;

if programming an electronic device is within the programming permissions, and an electronic device to be programmed is detected, programming the detected electronic device with device information related to a printing apparatus;

updating the encrypted portion of the programming permissions to reflect that the detected electronic device has been programmed;

determining if the updated programming permissions are below a predetermined threshold; and

if the updated programming permissions are below the predetermined threshold, requesting a refill of the programming permissions.

21. A method of programming one or more electronic devices with device information, the method comprising:

establishing programming permissions in a programming system, wherein establishing programming permissions comprises:

establishing a control portion of the programming permissions in a first storage location in the programming system; and

additionally establishing the control portion of the programming permissions in a second storage location in the programming system;

examining the control portion of the programming permissions to determine if programming an electronic device is within the programming permissions;

detecting the presence of an electronic device to be programmed;

if programming an electronic device is within the programming permissions, and an electronic device to be programmed is detected, programming the detected electronic device;

updating the encrypted portion of the programming permissions to reflect that the detected electronic device has been programmed;

determining if the updated programming permissions are below a predetermined threshold; and

if the updated programming permissions are below the predetermined threshold, requesting a refill of the programming permissions.

22. The method of claim 21, wherein examining the control portion comprises examining the control portions in both the first and second storage locations.

23. The method of claim 21, wherein issuing an error message if the control portions in the first and second storage locations differ from one another.

24. The method of claim 21, wherein establishing programming permissions in the programming system additionally comprises encrypting at least the control portion of the programming permissions established at the first storage location.

25. A programming system for programming electronic printer module tracking devices, the system comprising:

a security card reader for receiving a security card;

a programmed computer;

wherein the security card reader is connected to the programmed computer; and

a device programmer connected to the programmed computer for programming electronic devices with device information in response to instructions from the programmed computer;

wherein the programmed computer is programmed with programming permissions that include a maximum number of electronic devices into which the programmed computer is authorized to program the device information;

wherein the programmed computer is programmed to receive a refill file to refill the maximum number of electronic devices that the programming system is permitted to program through the device programmer; and

wherein the programmed computer is programmed to install the refill file only if the security card presented to the security card reader contains authorized refill permissions.

26. The programming system of claim 25, wherein:
the programmed computer comprises first and second storage locations; and
the programmed computer is programmed to store the maximum number in both the first and second storage locations.

27. The programming system of claim 26, wherein the programmed computer is programmed to encrypt the maximum number stored at the first storage location.